

WEAR SEVERE CONTAMINATION ABNORMAL FLUID CONDITION ABNORMAL

Machine Id **139-426** Component **Diesel Engine** Fluid **{not provided} (--- LTR)**

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil and perform a filter service on this component if not already done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

WEAR

Piston, ring and cylinder wear is indicated.

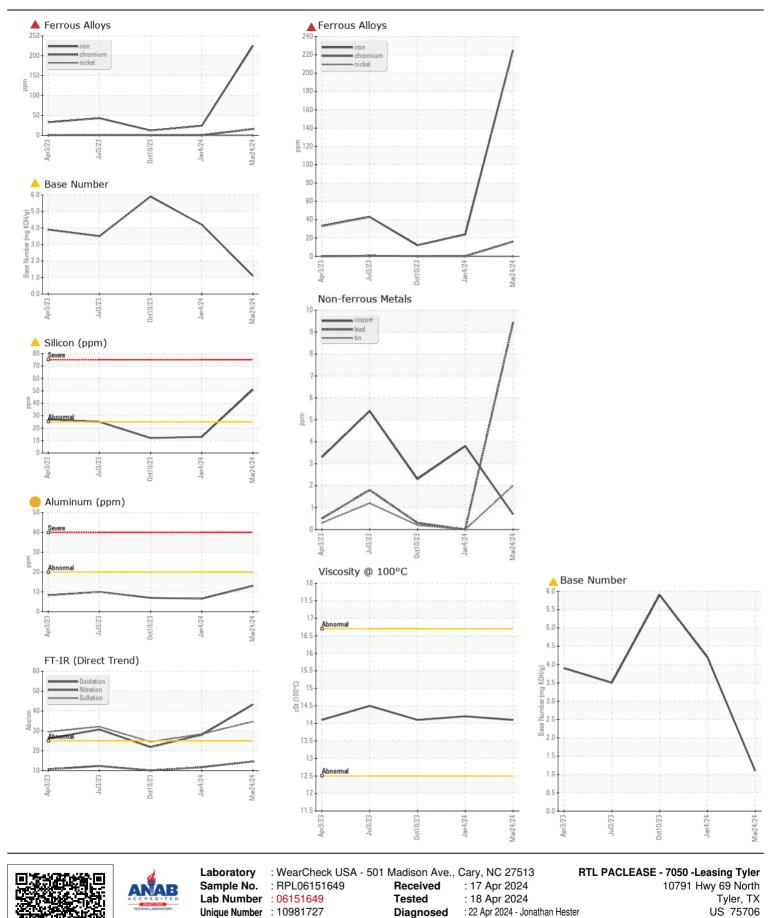
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Elemental levels of silicon (Si) and aluminum (Al) indicate aluminasilicate (coarse dirt) ingress.

FLUID CONDITION

The BN level is low. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

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Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL06151649	RPL06057314	RPL05982698
Sample Date		Client Info		24 Mar 2024	04 Jan 2024	10 Oct 2023
Machine Age	mls	Client Info		217216	305000	269737
Oil Age	mls	Client Info		5532	62000	26325
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	225	24	12
Chromium	ppm	ASTM D5185m	>20	1 6	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	1 3	6	7
Lead	ppm	ASTM D5185m	>40	9	0	<1
Copper	ppm	ASTM D5185m	>330	<1	4	2
Tin	ppm	ASTM D5185m	>15	2	0	<1
Vanadium	ppm	ASTM D5185m	NIGNE	0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	5 1	13	12
Potassium	ppm	ASTM D5185m	>20	5	11	7
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	14.6	11.7	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	34.7	28.4	24.5
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Sodium		ASTM D5185m		2	-1	2
Boron	ppm	ASTM D5185m ASTM D5185m		2 58	<1 50	2 95
Barium	ppm	ASTM D5185m		- 56 0	0	95
Molybdenum	ppm ppm	ASTM D5185m		123	134	127
Manganese	ppm	ASTM D5185m		3	0	0
Magnesium	ppm	ASTM D5185m		670	677	620
Calcium	ppm	ASTM D5185m		1580	1647	1539
Phosphorus	ppm	ASTM D5185m		710	755	695
Zinc	ppm	ASTM D5185m		851	915	872
Sulfur	ppm	ASTM D5185m		2612	2573	2692
Oxidation	Abs/.1mm	*ASTM D310311	>25	43.2	28.0	21.8
Base Number (BN)	mg KOH/g	ASTM D7414 ASTM D2896	~	43.2 1 .1	4.2	5.9
Visc @ 100°C	cSt	ASTM D2030 ASTM D445		14.1	14.2	14.1
	001	70 HM D440		<u> </u>	17.4	1-7.1



Test Package : FLEET Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. CooperJ1@RushEnterprises.Com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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